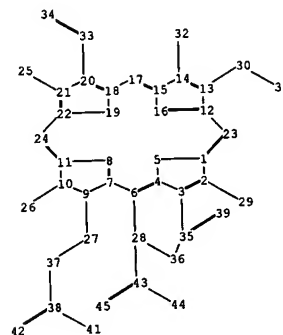
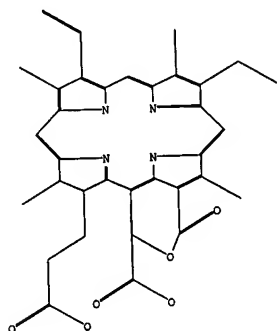


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L2	444	purpurin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:10
L3	881	540/145	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:10
L4	1535	534/15	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:10
L5	783	514/185	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:10
L6	1091	514/410	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:10
L7	1397	424/9.1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:11
L8	5218	I2 or I3 or I4 or I5 or I6 or I7	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:11
L9	444	I2 and I8	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:11
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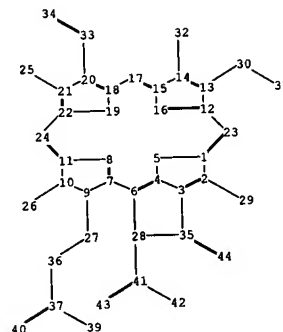
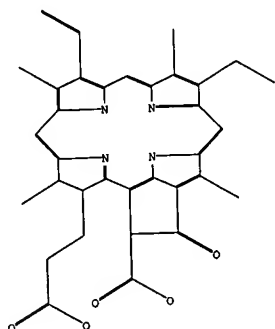
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L15	2	l9 and l14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	ADJ	OFF	2005/01/27 15:13



chain nodes :
 25 26 27 29 30 31 32 33 34 37 38 39 41 42 43 44 45
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 23 24 28 35 36
 chain bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-37 28-43 30-31 33-34
 35-39 37-38 38-41 38-42 43-44 43-45
 ring bonds :
 1-2 1-5 1-23 2-3 3-4 3-35 4-5 4-6 6-7 6-28 7-8 7-9 8-11 9-10
 10-11 11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19
 18-20 19-22 20-21 21-22 22-24 28-36 35-36
 exact/norm bonds :
 1-5 3-35 4-5 6-28 7-9 9-10 10-11 12-13 13-14 14-15 18-19 19-22
 28-36 35-36 35-39 38-41 38-42 43-44 43-45
 exact bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-37 28-43 30-31 33-34
 37-38
 normalized bonds :
 1-2 1-23 2-3 3-4 4-6 6-7 7-8 8-11 11-24 12-16 12-23 15-16 15-17
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G1:O,N

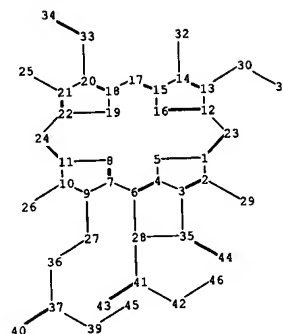
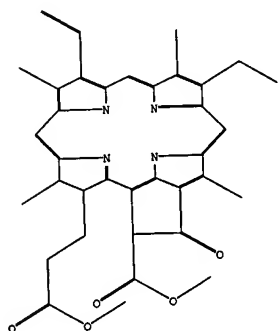
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 28:CLAS29:Atom 30:Atom 31:Atom 32:Atom 33:CLASS34:CLASS35:Atom
 36:Atom 37:CLASS38:CLASS39:CLASS41:CLASS42:CLASS43:CLASS44:CLASS
 45:CLASS



chain nodes :
 25 26 27 29 30 31 32 33 34 36 37 39 40 41 42 43 44
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 23 24 28 35
 chain bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34
 35-44 36-37 37-39 37-40 41-42 41-43
 ring bonds :
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 10-11 11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19
 18-20 19-22 20-21 21-22 22-24 28-35
 exact/norm bonds :
 1-5 3-35 4-5 6-28 7-9 9-10 10-11 12-13 13-14 14-15 18-19 19-22
 28-35 35-44 37-39 37-40 41-42 41-43
 exact bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34
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 normalized bonds :
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G1:O,N

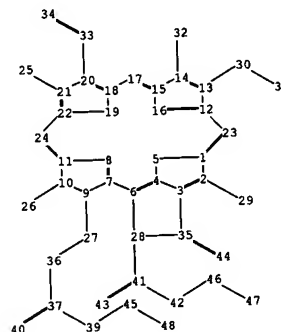
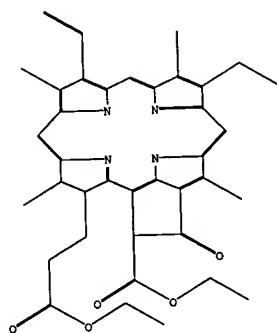
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 28:CLAS29:Atom 30:Atom 31:Atom 32:Atom 33:CLASS34:CLASS35:Atom
 36:CLASS37:CLASS39:CLASS40:CLASS41:CLASS42:CLASS43:CLASS44:CLASS



chain nodes :
 25 26 27 29 30 31 32 33 34 36 37 39 40 41 42 43 44 45 46
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 23 24 28 35
 chain bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34
 35-44 36-37 37-39 37-40 39-45 41-42 41-43 42-46
 ring bonds :
 1-2 1-5 1-23 2-3 3-4 3-35 4-5 4-6 6-7 6-28 7-8 7-9 8-11 9-10
 10-11 11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19
 18-20 19-22 20-21 21-22 22-24 28-35
 exact/norm bonds :
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 28-35 35-44 37-39 37-40 39-45 41-42 41-43 42-46
 exact bonds :
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 normalized bonds :
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G1:O,N

Match level :
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 36:CLASS37:CLASS39:CLASS40:CLASS41:CLASS42:CLASS43:CLASS44:CLASS
 45:CLASS46:CLASS



chain nodes :
 25 26 27 29 30 31 32 33 34 36 37 39 40 41 42 43 44 45 46 47
 48

ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 23 24 28 35

chain bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34
 35-44 36-37 37-39 37-40 39-45 41-42 41-43 42-46 45-48 46-47

ring bonds :
 1-2 1-5 1-23 2-3 3-4 3-35 4-5 4-6 6-7 6-28 7-8 7-9 8-11 9-10
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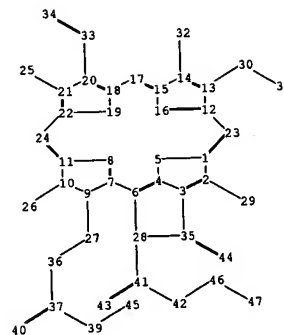
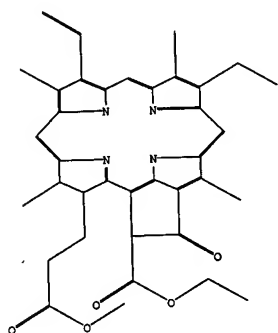
exact/norm bonds :
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 28-35 35-44 37-39 37-40 39-45 41-42 41-43 42-46

exact bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34
 36-37 45-48 46-47

normalized bonds :
 1-2 1-23 2-3 3-4 4-6 6-7 7-8 8-11 11-24 12-16 12-23 15-16 15-17
 17-18 18-20 20-21 21-22 22-24

G1:O,N

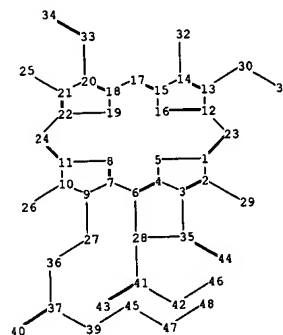
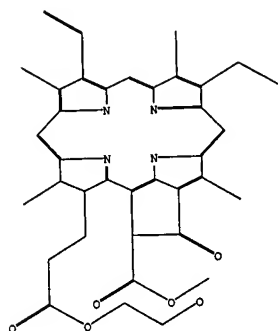
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 36:CLASS37:CLASS39:CLASS40:CLASS41:CLASS42:CLASS43:CLASS44:CLASS
 45:CLASS46:CLASS47:CLASS48:CLASS



chain nodes :
 25 26 27 29 30 31 32 33 34 36 37 39 40 41 42 43 44 45 46 47
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 23 24 28 35
 chain bonds :
 2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34
 35-44 36-37 37-39 37-40 39-45 41-42 41-43 42-46 46-47
 ring bonds :
 1-2 1-5 1-23 2-3 3-4 3-35 4-5 4-6 6-7 6-28 7-8 7-9 8-11 9-10
 10-11 11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19
 18-20 19-22 20-21 21-22 22-24 28-35
 exact/norm bonds :
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 28-35 35-44 37-39 37-40 39-45 41-42 41-43 42-46
 exact bonds :
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 36-37 46-47
 normalized bonds :
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G1:O,N

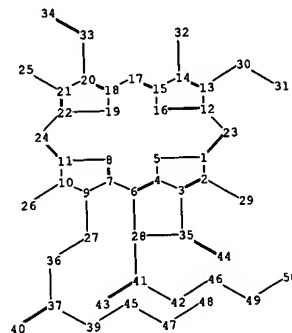
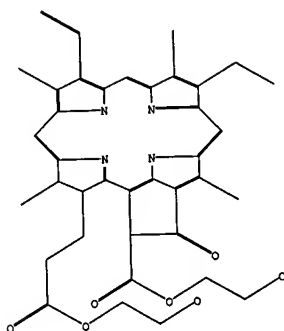
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 45:CLASS46:CLASS47:CLASS



chain nodes :
 25 26 27 29 30 31 32 33 34 36 37 39 40 41 42 43 44 45 46 47
 48
 ring nodes :
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
 23 24 28 35
 chain bonds :
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 35-44 36-37 37-39 37-40 39-45 41-42 41-43 42-46 45-47 47-48
 ring bonds :
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 10-11 11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19
 18-20 19-22 20-21 21-22 22-24 28-35
 exact/norm bonds :
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 28-35 35-44 37-39 37-40 39-45 41-42 41-43 42-46 47-48
 exact bonds :
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 36-37 45-47
 normalized bonds :
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G1:O,N

Match level :
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chain nodes :
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48 49 50

ring nodes :
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23 24 28 35

chain bonds :
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35-44 36-37 37-39 37-40 39-45 41-42 41-43 42-46 45-47 46-49 47-48
49-50

ring bonds :
1-2 1-5 1-23 2-3 3-4 3-35 4-5 4-6 6-7 6-28 7-8 7-9 8-11 9-10
10-11 11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19
18-20 19-22 20-21 21-22 22-24 28-35

exact/norm bonds :
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28-35 35-44 37-39 37-40 39-45 41-42 41-43 42-46 47-48 49-50

exact bonds :
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36-37 45-47 46-49

normalized bonds :
1-2 1-23 2-3 3-4 4-6 6-7 7-8 8-11 11-24 12-16 12-23 15-16 15-17
17-18 18-20 20-21 21-22 22-24

G1:O,N

Match level :
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45:CLASS

46:CLASS47:CLASS48:CLASS49:CLASS50:CLASS

NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 09:54:33 ON 27 JAN 2005

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 09:54:41 ON 27 JAN 2005
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DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

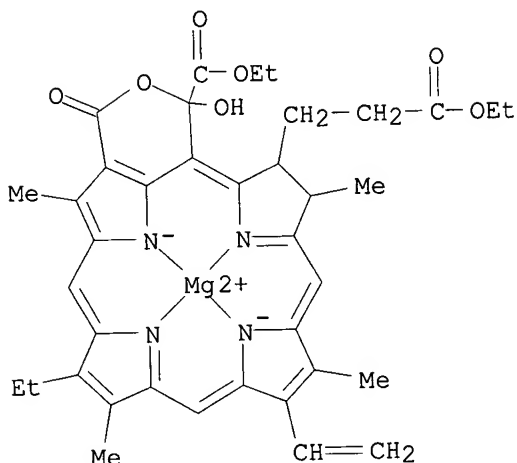
=> 15653-97-1
15653-97-1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s 15653-97-1
L1 1 15653-97-1
(15653-97-1/RN)

=> d l1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 15653-97-1 REGISTRY
CN Magnesium, [ethyl (15S,16S,18R)-10-ethenyl-18-(ethoxycarbonyl)-5-ethyl-1,16,18,20-tetrahydro-18-hydroxy-6,11,15,22-tetramethyl-20-oxo-15H-9,12-imino-21,2-metheno-4,7:17,14-dinitrilopyrano[4,3-b]azacyclononadecine-16-propanoato(2-)-κN1,κN23,κN24,κN25]-, (SP-4-2)-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Chlorine, diethyl ester, magnesium deriv. (6CI)

MF C38 H40 Mg N4 O7
CI CCS
LC STN Files: CAOLD



1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> FIL REGISTRY

COST IN U.S. DOLLARS

SINCE FILE
ENTRY
2.27

TOTAL
SESSION
2.48

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 09:55:35 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L1 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L2 1 15653-97-1/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAOLD

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	2.99

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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> S L2

L3 1 L2

=> DIS L3 1

L3 ANSWER 1 OF 1 CAOLD COPYRIGHT 2005 ACS on STN
AN CA52:10299f CAOLD
TI phase test intermediate and the allomerization of chlorophyll a
AU Holt, A. Stanley
IT 15653-97-1 15741-04-5 16103-85-8 128552-37-4 129001-91-8

=> d page

L3 ANSWER 1 OF 1 CAOLD COPYRIGHT 2005 ACS on STN
CA52:10299f

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=> b ca

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	6.59	9.58
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-0.68	-0.68

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FILE COVERS 1907 - 20 Jan 2005 VOL 142 ISS 5
 FILE LAST UPDATED: 20 Jan 2005 (20050120/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 52:56868/an
 L4 1 52:56868/AN

=> d 14

L4 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN
 AN 52:56868 CA
 OREF 52:10299f-h
 TI The phase test intermediate and the allomerization of chlorophyll a
 AU Holt, A. S.
 CS Natl. Research Labs., Ottawa
 SO Canadian Journal of Biochemistry and Physiology (1958), 36, 439-56
 CODEN: CJBPAZ; ISSN: 0576-5544
 DT Journal
 LA Unavailable

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L4 ANSWER 1 OF 1 CA COPYRIGHT 2005 ACS on STN
 AN 52:56868 CA
 OREF 52:10299f-h
 ED Entered STN: 22 Apr 2001
 TI The phase test intermediate and the allomerization of chlorophyll a
 AU Holt, A. S.
 CS Natl. Research Labs., Ottawa
 SO Canadian Journal of Biochemistry and Physiology (1958), 36, 439-56
 CODEN: CJBPAZ; ISSN: 0576-5544
 DT Journal
 LA Unavailable
 CC 11D (Biological Chemistry: Botany)
 AB The phase test intermediate of methyl chlorophyllide a is generated in organic solvents by alkoxyl and hydroxyl ions. It is oxidized by O and such oxidants as iodine, p-benzoquinone, and KMnO4. Different products are

obtained depending on the solvent, the base used, and the oxidant. Three fractions are obtained from MeOH containing O and traces of Mg methoxide. These are Mg purpurin 7-trimethyl ester, Mg purpurin 7-lactone methyl ether dimethyl ester, and Mg 10-hydroxymethylpheophorbide a. Mg "unstable" chlorin diester is obtained by oxidation with KMnO4 of the intermediate generated in pyridine by aqueous KOH. Mg 10-methoxymethylpheophorbide a is obtained by oxidation with I of the phase test intermediate generated in MeOH by Mg methoxide. It is concluded that allomerization of chlorophyll in alc. solution is due to oxidation by O of traces of phase test intermediate.

IT Chlorine (the porphyrin)
 (esters, Mg complexes, from oxidation of Me chlorophyllide)
 IT Purpurine 7
 (esters, Mg derivs., from oxidation of methyl chlorophyllide a)
 IT 479-61-8, Chlorophyll a
 (allomerization of, intermediates in)
 IT 16103-85-8, Pheophorbide a, 10-hydroxy-, methyl ester, Mg derivative
 129001-91-8, Pheophorbide a, 10-methoxy-, methyl ester, Mg derivative
 (from oxidation of methyl chlorophyllide a)
 IT 11059-56-6, Chlorophyllide a, methyl-
 (intermediates from oxidation of)
 IT 15741-04-5, Chlorophyllide a, methyl ester
 (intermediates from oxidation of)

=> FIL STNGUIDE	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
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FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-0.68	-1.36

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 AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jan 21, 2005 (20050121/UP).

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Welcome to STN International! Enter x:x

LOGINID:sssptamlf1623

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

=> file registry
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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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CA SUBSCRIBER PRICE

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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

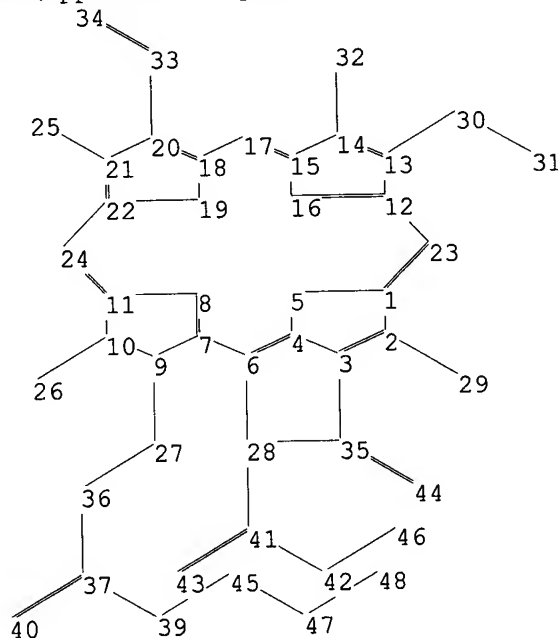
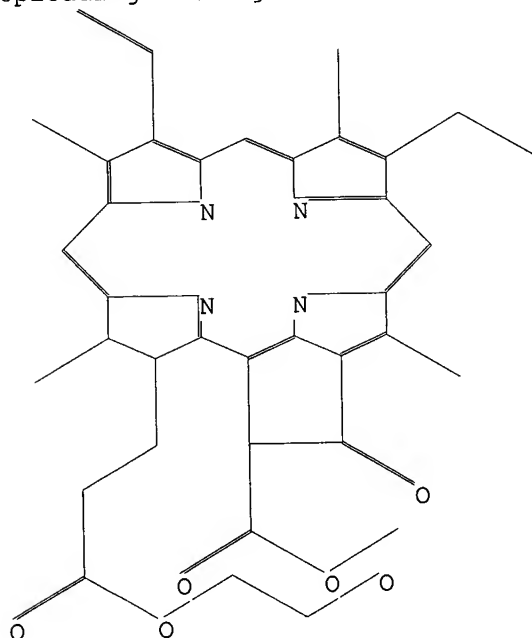
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<http://www.cas.org/ONLINE/DBSS/registryss.html>

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ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 28 35
chain bonds :
2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34 35-44
36-37 37-39 37-40 39-45 41-42 41-43 42-46 45-47 47-48
ring bonds :
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11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19 18-20 19-22
20-21 21-22 22-24 28-35
exact/norm bonds :
1-5 3-35 4-5 6-28 7-9 9-10 10-11 12-13 13-14 14-15 18-19 19-22 28-35
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normalized bonds :
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18-20 20-21 21-22 22-24

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G1:O,N

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:Atom 27:Atom 28:CLASS
29:Atom 30:Atom 31:Atom 32:Atom 33:CLASS 34:CLASS 35:Atom 36:CLASS 37:CLASS
39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS
47:CLASS 48:CLASS

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L5 STRUCTURE UPLOADED

=> que L5

L6 QUE L5

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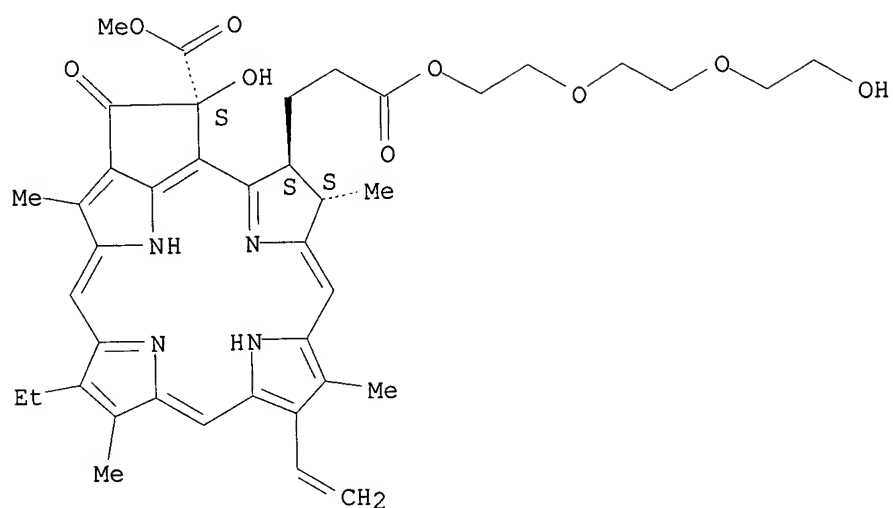
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L7 ANSWER 1 OF 13 REGISTRY COPYRIGHT 2005 ACS on STN
RN 725269-95-4 REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-hydroxy-21-
(methoxycarbonyl)-4,8,13,18-tetramethyl-20-oxo-, 2-[2-(2-
hydroxyethoxy)ethoxy]ethyl ester, (3S,4S,21S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C41 H48 N4 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES
(Uses)

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Absolute stereochemistry.

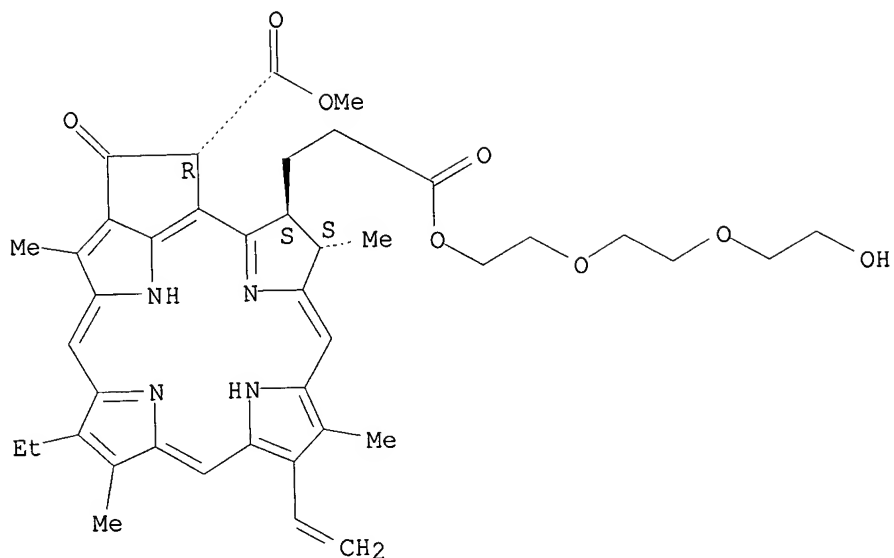


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 2 OF 13 REGISTRY COPYRIGHT 2005 ACS on STN
RN 725269-94-3 REGISTRY
CN 3-Phorbinopropanoic acid, 9-ethenyl-14-ethyl-21-(methoxycarbonyl)-
4,8,13,18-tetramethyl-20-oxo-, 2-[2-(2-hydroxyethoxy)ethoxy]ethyl ester,
(3S,4S,21R)- (9CI) (CA INDEX NAME)
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MF C41 H48 N4 O8
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LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
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(Uses)

Absolute stereochemistry.

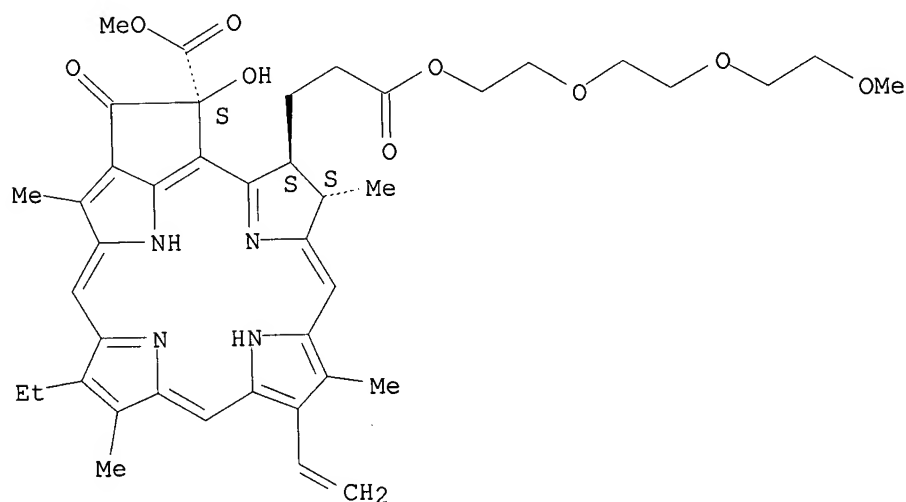


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RN 725269-93-2 REGISTRY
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FS STEREOSEARCH
MF C42 H50 N4 O9
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RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.

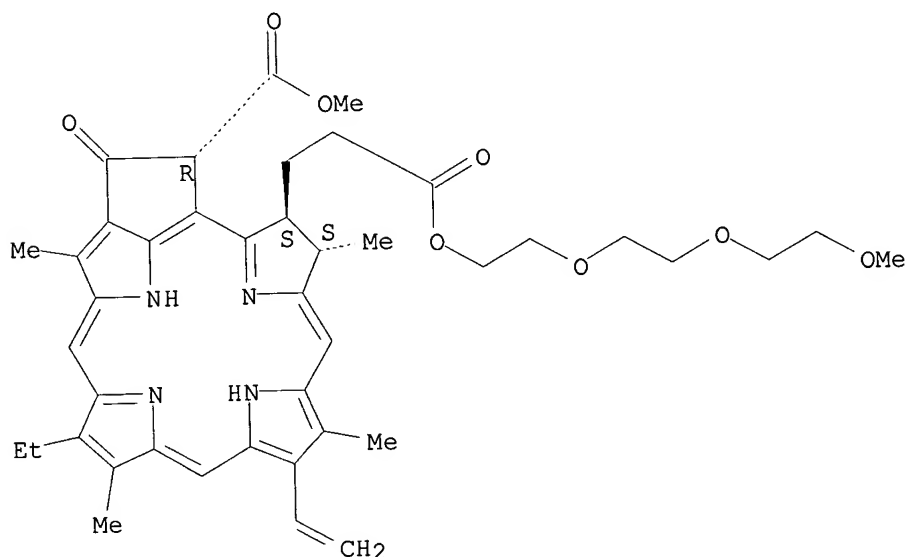


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RN 725269-92-1 REGISTRY
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(3S,4S,21R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C42 H50 N4 O8
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
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(Uses)

Absolute stereochemistry.

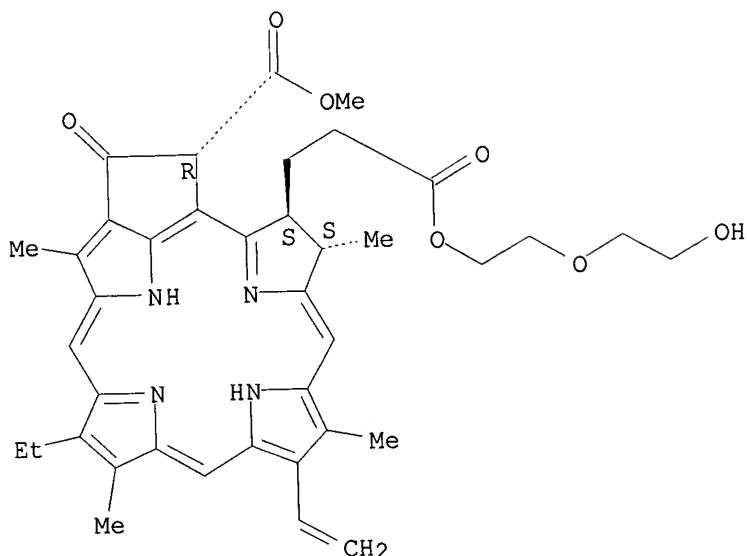


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L7 ANSWER 5 OF 13 REGISTRY COPYRIGHT 2005 ACS on STN
RN 725269-91-0 REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-(methoxycarbonyl)-
4,8,13,18-tetramethyl-20-oxo-, 2-(2-hydroxyethoxy)ethyl ester,
(3S,4S,21R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C39 H44 N4 O7
SR CA
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RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES
(Uses)

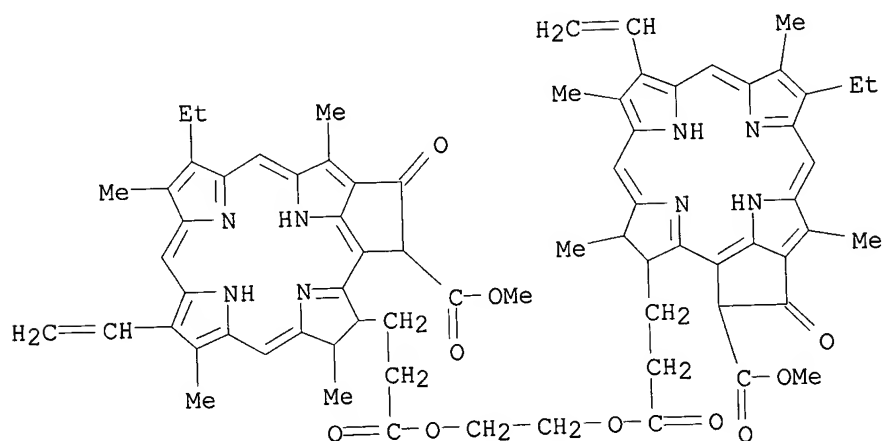
Absolute stereochemistry.



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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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RN 73197-83-8 REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-(methoxycarbonyl)-
4,8,13,18-tetramethyl-20-oxo-, 1,2-ethanediyl ester, [3S-
[3 α (3'R*,4'R*,21'S*),4 β ,21 β]]- (9CI) (CA INDEX NAME)
MF C72 H74 N8 O10
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(*File contains numerically searchable property data)
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)

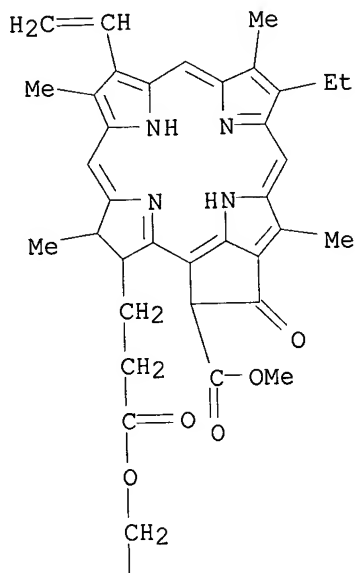


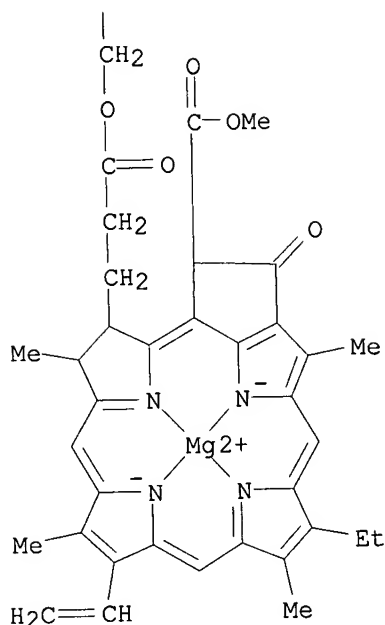
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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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RN 73193-00-7 REGISTRY
CN Magnesium, [[1,2-ethanediyl bis[9-ethenyl-14-ethyl-21-(methoxycarbonyl)-
4,8,13,18-tetramethyl-20-oxo-3-phorbinepropanoato]] (2-)-N23,N24,N25,N26]-,
[SP-4-2-[3R-[3 α (3'R*,4'R*,21'S*),4 β ,21 β]]]- (9CI) (CA
INDEX NAME)
OTHER CA INDEX NAMES:
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-(methoxycarbonyl)-
4,8,13,18-tetramethyl-20-oxo-, 1,2-ethanediyl ester, magnesium complex,
[3S-[3 α (3'R*,4'R*,21'S*),4 β ,21 β]]-
CN Phorbine, magnesium deriv.
MF C72 H72 Mg N8 O10
CI CCS
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)

PAGE 1-A



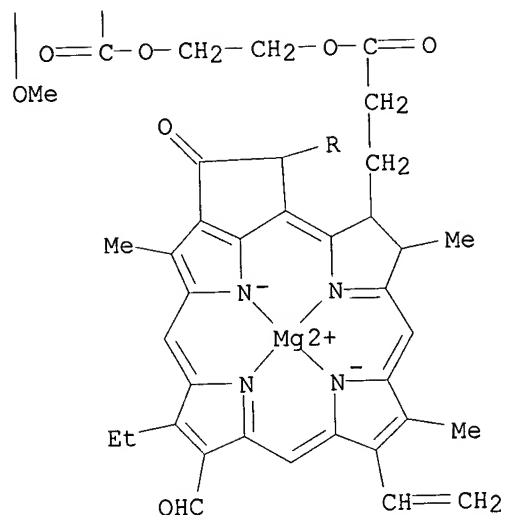
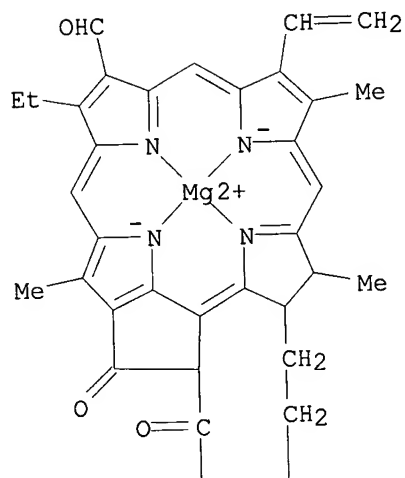
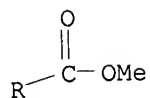


1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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L7      ANSWER 8 OF 13  REGISTRY  COPYRIGHT 2005 ACS on STN
RN      73192-98-0    REGISTRY
CN      Magnesium, [ $\mu$ -[[1,2-ethanediyl bis[9-ethenyl-14-ethyl-13-formyl-21-
(methoxycarbonyl)-4,8,18-trimethyl-20-oxo-3-phorbinepropanoato]](4)-
N23,N24,N25,N26:N23',N24',N25',N26']]di-, stereoisomer (9CI) (CA INDEX
NAME)
OTHER CA INDEX NAMES:
CN      3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-13-formyl-21-
(methoxycarbonyl)-4,8,18-trimethyl-20-oxo-, 1,2-ethanediyl ester,
magnesium complex, [3S-[3 $\alpha$ (3'R*,4'R*,21'S*),4 $\beta$ ,21 $\beta$ ]]-
CN      Phorbine, magnesium deriv.
MF      C72 H66 Mg2 N8 O12
CI      CCS
LC      STN Files:  BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA   CAPLUS document type:  Journal
RL.NP   Roles from non-patents:  PREP (Preparation)

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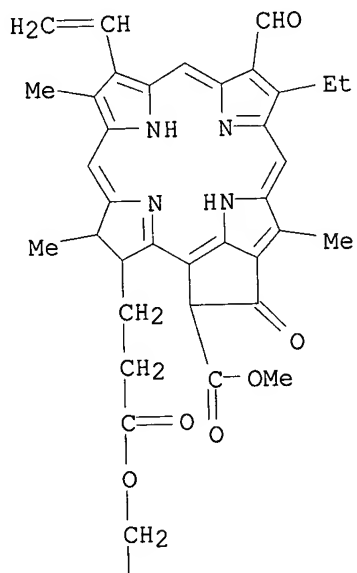


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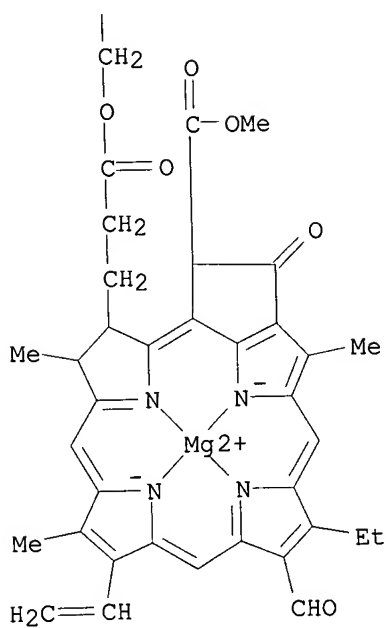
L7 ANSWER 9 OF 13 REGISTRY COPYRIGHT 2005 ACS on STN
RN 73192-97-9 REGISTRY
CN Magnesium, [[1,2-ethanediyl bis[9-ethenyl-14-ethyl-13-formyl-21-(methoxycarbonyl)-4,8,18-trimethyl-20-oxo-3-phorbinepropanoato]](2-)-N23,N24,N25,N26]-, [SP-4-2-[3S-[3α(3'R*,4'R*,21'S*),4β,21β]]]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-13-formyl-21-(methoxycarbonyl)-4,8,18-trimethyl-20-oxo-, 1,2-ethanediyl ester,

magnesium complex, [3S-[3 α (3'R*,4'R*,21'S*),4 β ,21 β]]-
 CN Phorbine, magnesium deriv.
 MF C72 H68 Mg N8 O12
 CI CCS
 LC STN Files: CA, CAPLUS
 DT.CA Caplus document type: Journal
 RL.NP Roles from non-patents: PREP (Preparation)

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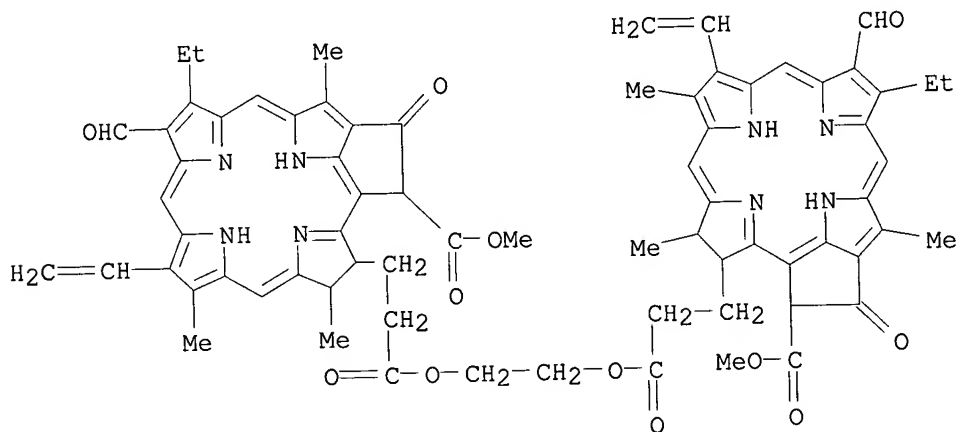


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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 RN 73178-47-9 REGISTRY
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 MF C72 H70 N8 O12
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 RL.NP Roles from non-patents: PREP (Preparation)

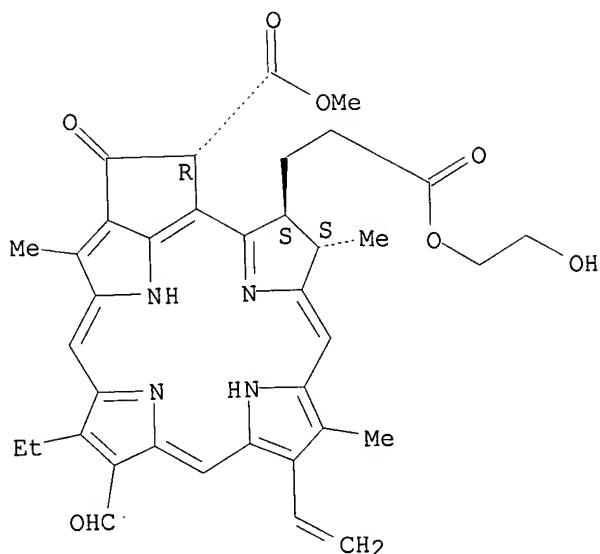


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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 RN 73178-46-8 REGISTRY
 CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-13-formyl-21-(methoxycarbonyl)-4,8,18-trimethyl-20-oxo-, 2-hydroxyethyl ester, [3S-(3 α ,4 β ,21 β)]- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C37 H38 N4 O7
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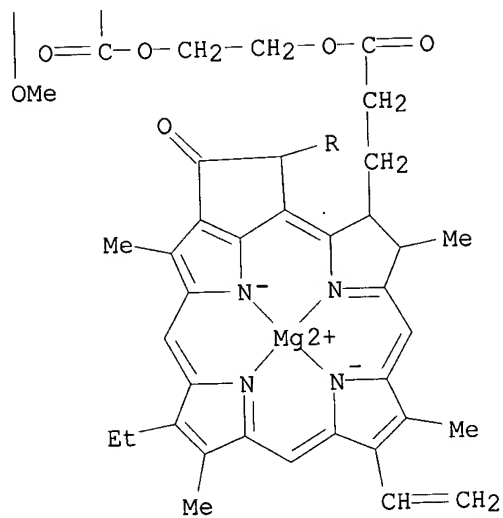
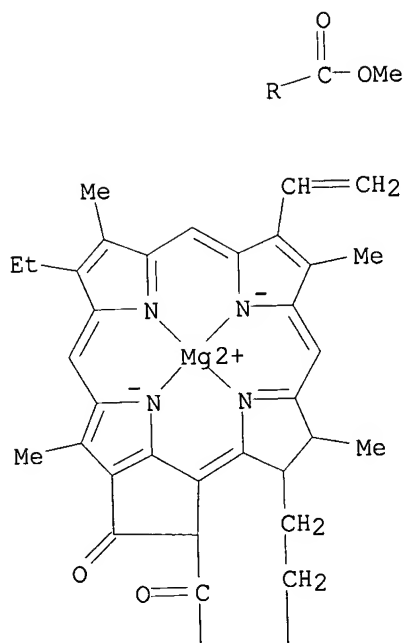
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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L7 ANSWER 12 OF 13 REGISTRY COPYRIGHT 2005 ACS on STN
RN 61823-38-9 REGISTRY
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CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-(methoxycarbonyl)-4,8,13,18-tetramethyl-20-oxo-, 1,2-ethanediyl ester, magnesium complex, [3S-[3 α (3'R*,4'R*,21'S*),4 β ,21 β]]-
CN Phorbine, magnesium deriv.
MF C72 H70 Mg2 N8 O10
CI CCS
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); PRP (Properties)



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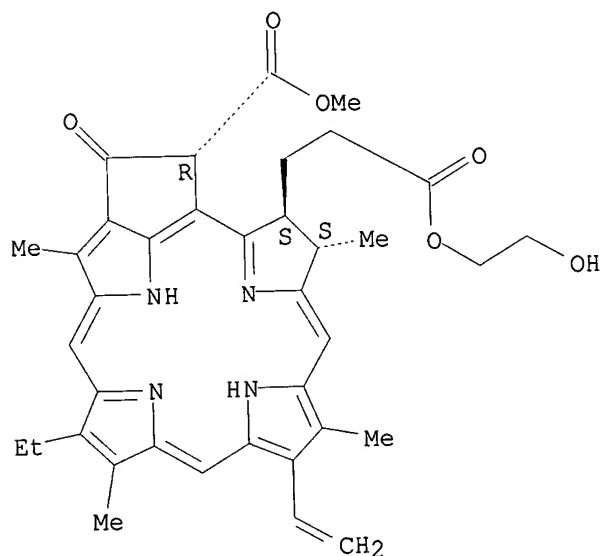
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RN 61774-49-0 REGISTRY
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4,8,13,18-tetramethyl-20-oxo-, 2-hydroxyethyl ester, [3S-
(3 α ,4 β ,21 β)]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Pheophorbide a ethylene glycol monoester
FS STEREOSEARCH
MF C37 H40 N4 O6

LC STN Files: BEILSTEIN*, CA, CAPLUS
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Absolute stereochemistry.



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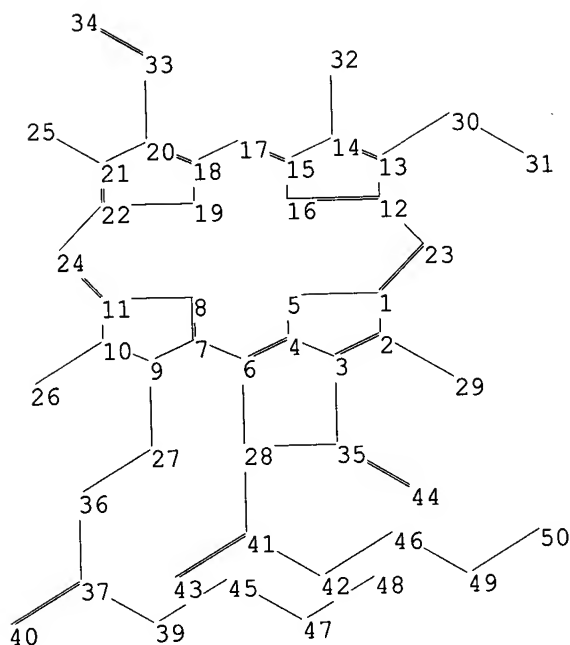
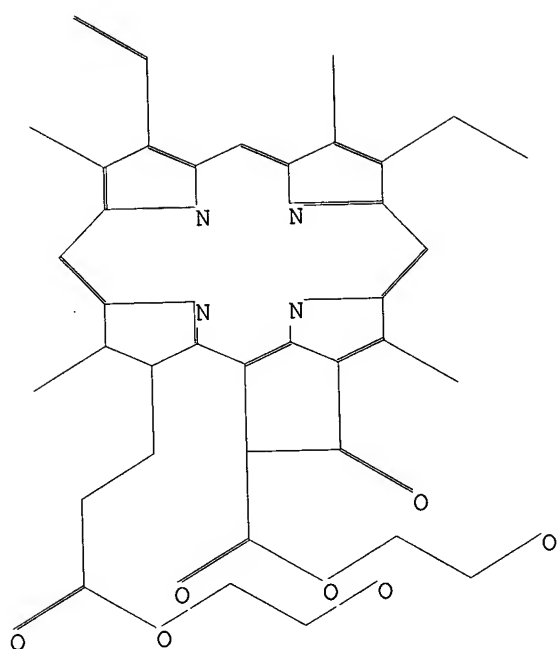
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25 26 27 29 30 31 32 33 34 36 37 39 40 41 42 43 44 45 46 47 48
49 50
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 28 35
chain bonds :
2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34 35-44
36-37 37-39 37-40 39-45 41-42 41-43 42-46 45-47 46-49 47-48 49-50
ring bonds :
1-2 1-5 1-23 2-3 3-4 3-35 4-5 4-6 6-7 6-28 7-8 7-9 8-11 9-10 10-11
11-24 12-13 12-16 12-23 13-14 14-15 15-16 15-17 17-18 18-19 18-20 19-22
20-21 21-22 22-24 28-35
exact/norm bonds :
1-5 3-35 4-5 6-28 7-9 9-10 10-11 12-13 13-14 14-15 18-19 19-22 28-35
35-44 37-39 37-40 39-45 41-42 41-43 42-46 47-48 49-50
exact bonds :
2-29 9-27 10-26 13-30 14-32 20-33 21-25 27-36 28-41 30-31 33-34 36-37
45-47 46-49
normalized bonds :
1-2 1-23 2-3 3-4 4-6 6-7 7-8 8-11 11-24 12-16 12-23 15-16 15-17 17-18
18-20 20-21 21-22 22-24

```

G1:O,N

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:Atom 27:Atom 28:CLASS
29:Atom 30:Atom 31:Atom 32:Atom 33:CLASS 34:CLASS 35:Atom 36:CLASS 37:CLASS
39:CLASS 40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS
47:CLASS 48:CLASS 49:CLASS 50:CLASS

```

=> que L8

L9 QUE L8

=> s l9 sss full

FULL SEARCH INITIATED 10:34:46 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 281 TO ITERATE

100.0% PROCESSED 281 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

L10 0 SEA SSS FUL L8

=>

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptamlf1623

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 10:35:31 ON 27 JAN 2005
FILE 'REGISTRY' ENTERED AT 10:35:31 ON 27 JAN 2005
COPYRIGHT (C) 2005 American Chemical Society (ACS)
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
350.45	367.45

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-1.36

CA SUBSCRIBER PRICE

=> file registry

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
350.88	367.88

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-1.36

CA SUBSCRIBER PRICE

FILE 'REGISTRY' ENTERED AT 10:35:52 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer

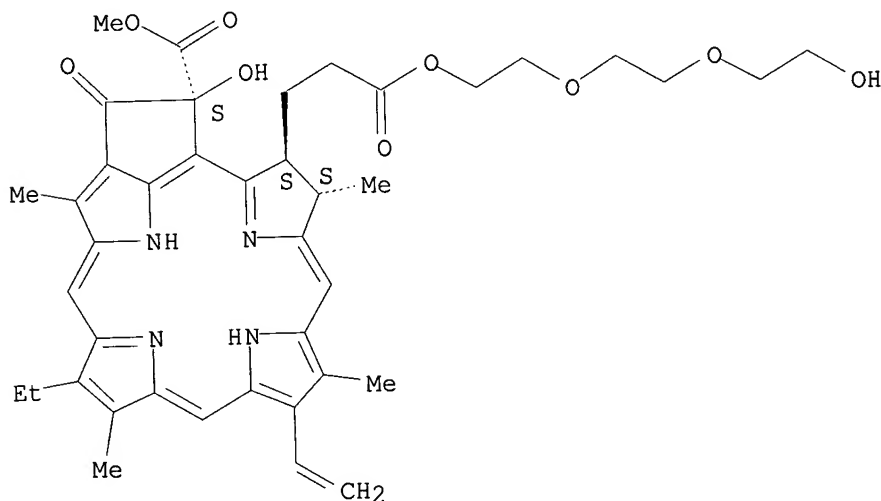
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 725269-95-4
L11 1 725269-95-4
(725269-95-4/RN)

=> d l11

L11 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 725269-95-4 REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-hydroxy-21-(methoxycarbonyl)-4,8,13,18-tetramethyl-20-oxo-, 2-[2-(2-hydroxyethoxy)ethoxy]ethyl ester, (3S,4S,21S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C41 H48 N4 O9
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.27	370.15
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:36:15 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L11 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L12 1 725269-95-4/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL USPATFULL

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	370.66
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'USPATFULL' ENTERED AT 10:36:20 ON 27 JAN 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 25 Jan 2005 (20050125/PD)
FILE LAST UPDATED: 25 Jan 2005 (20050125/ED)
HIGHEST GRANTED PATENT NUMBER: US6848117
HIGHEST APPLICATION PUBLICATION NUMBER: US2005015836
CA INDEXING IS CURRENT THROUGH 25 Jan 2005 (20050125/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Jan 2005 (20050125/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<

```

>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

```

```

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

```

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L12

L13 1 L12

=> DIS L13 1

```

L13 ANSWER 1 OF 1 USPATFULL on STN
AN 2004:185031 USPATFULL
TI Porphyrin derivatives
IN Woo, Nam-Tae, Seoul, KOREA, REPUBLIC OF
Kang, Min-Suk, Ansan, KOREA, REPUBLIC OF
Lee, Won-Young, Seoul, KOREA, REPUBLIC OF
Lee, Chang-Hee, Chuncheon, KOREA, REPUBLIC OF
Kim, Yong-Rok, Seoul, KOREA, REPUBLIC OF
Lee, Dai-Woon, Sungnam, KOREA, REPUBLIC OF
Won, Dong-Hoon, Wonju, KOREA, REPUBLIC OF
Ko, Si-Hwan, Goyang, KOREA, REPUBLIC OF
PI US 2004142917 A1 20040722
AI US 2003-718734 A1 20031120 (10)
PRAI KR 20030116
KR 20030116
DT Utility
FS APPLICATION
LN.CNT 870
INCL INCLM: 514/185.000
INCLS: 514/410.000; 540/145.000
NCL NCLM: 514/185.000
NCLS: 514/410.000; 540/145.000
IC [7]
ICM: A61K031-555
ICS: C07D487-22
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```

=> s 71178-46-8
L14 0 71178-46-8

=> s 73178-46-8
L15 0 73178-46-8

=> file registry
COST IN U.S. DOLLARS
FULL ESTIMATED COST

SINCE FILE	TOTAL
ENTRY	SESSION
9.38	380.04

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE
ENTRY
0.00

TOTAL
SESSION
-1.36

CA SUBSCRIBER PRICE

FILE 'REGISTRY' ENTERED AT 10:39:57 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

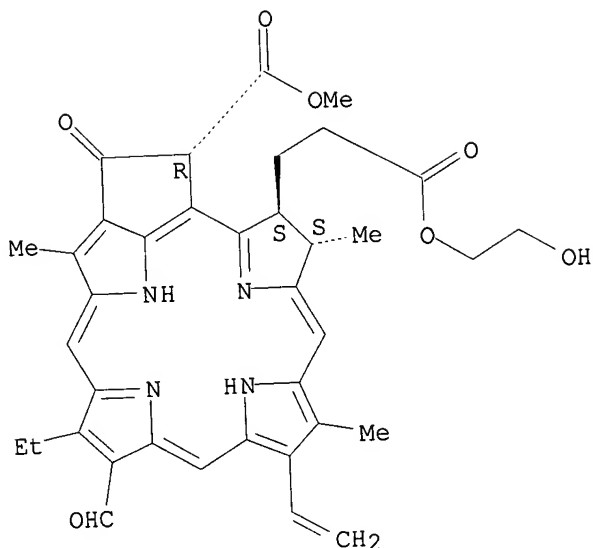
Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 73178-46-8
L16 1 73178-46-8
(73178-46-8/RN)

=> d l16

L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 73178-46-8 REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-13-formyl-21-
(methoxycarbonyl)-4,8,18-trimethyl-20-oxo-, 2-hydroxyethyl ester,
[3S-(3 α ,4 β ,21 β)]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H38 N4 O7
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAPLUS document type: Journal
RL.NP Roles from non-patents: PREP (Preparation)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.27	382.31
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:40:17 ON 27 JAN 2005
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DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L16 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L17 1 73178-46-8/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	0.51	382.82
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'CAPLUS' ENTERED AT 10:40:22 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L17

L18 1 L17

=> DIS L18 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L18 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:215417 CAPLUS
DN 92:215417
TI Synthesis of covalently linked dimeric derivatives of chlorophyll a, pyrochlorophyll a, chlorophyll b, and bacteriochlorophyll a
AU Wasielewski, Michael R.; Svec, Walter A.
CS Chem. Div., Argonne Natl. Lab., Argonne, IL, 60439, USA

SO Journal of Organic Chemistry (1980), 45(10), 1969-74
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English

=> FIL STNGUIDE	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	1.55	384.37
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'STNGUIDE' ENTERED AT 10:40:39 ON 27 JAN 2005
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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 21, 2005 (20050121/UP).

=> FIL CAPLUS	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	0.06	384.43
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'CAPLUS' ENTERED AT 10:40:54 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	0.45	384.88
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:41:07 ON 27 JAN 2005

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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

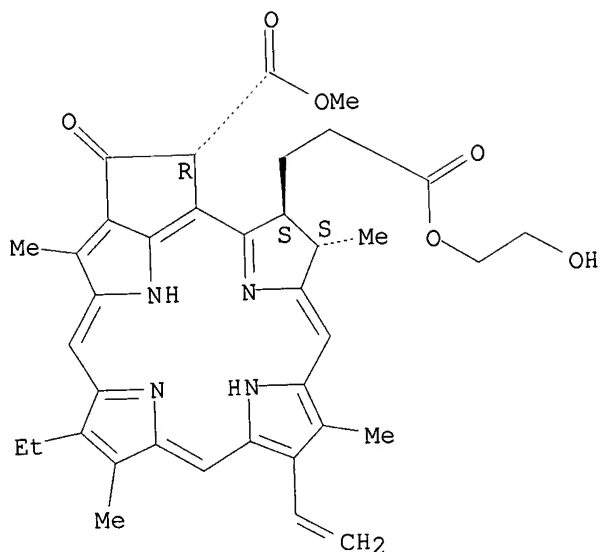
Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 61774-49-0
L19 1 61774-49-0
(61774-49-0/RN)

=> d 119

L19 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN **61774-49-0** REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-(methoxycarbonyl)-
4,8,13,18-tetramethyl-20-oxo-, 2-hydroxyethyl ester, [3S-
(3 α ,4 β ,21 β)]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Pheophorbide a ethylene glycol monoester
FS STEREOSEARCH
MF C37 H40 N4 O6
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.27	387.15
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:41:22 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L19 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L20 1 61774-49-0/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	0.51	387.66
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'CAPLUS' ENTERED AT 10:41:26 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L20

L21 2 L20

=> DIS L21 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L21 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:215417 CAPLUS
DN 92:215417
TI Synthesis of covalently linked dimeric derivatives of chlorophyll a, pyrochlorophyll a, chlorophyll b, and bacteriochlorophyll a
AU Wasielewski, Michael R.; Svec, Walter A.
CS Chem. Div., Argonne Natl. Lab., Argonne, IL, 60439, USA

SO Journal of Organic Chemistry (1980), 45(10), 1969-74
CODEN: JOCEAH; ISSN: 0022-3263
DT Journal
LA English

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	4.70	392.36
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:46:22 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

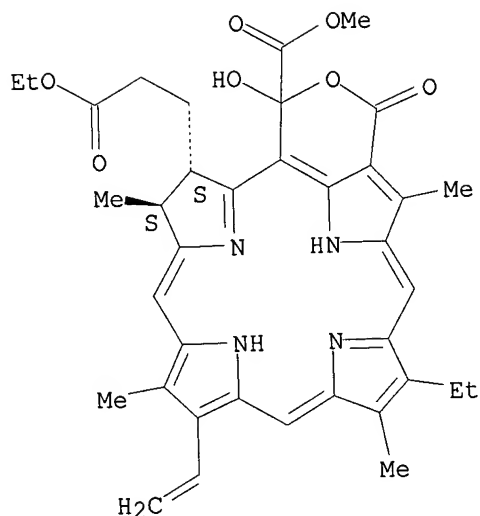
Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 676521-40-7
L22 1 676521-40-7
(676521-40-7/RN)

=> d 122

L22 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 676521-40-7 REGISTRY
CN 20H-9,12-Imino-2,21-metheno-7,4:14,17-dinitrilopyrano[4,3-
b]azacyclononadecine-16-propanoic acid, 10-ethenyl-5-ethyl-1,15,16,18-
tetrahydro-18-hydroxy-18-(methoxycarbonyl)-6,11,15,22-tetramethyl-20-oxo-,
ethyl ester, (15S,16S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C37 H40 N4 O7
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
DT.CA CAPLUS document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES
(Uses)
RL.NP Roles from non-patents: BIOL (Biological study); OCCU (Occurrence);
PREP (Preparation); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.27	394.63
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:46:45 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L22 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L23 1 676521-40-7/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	0.51	395.14
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L23

L24 2 L23

=> DIS L24 1
THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L24 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:631714 CAPLUS
DN 141:150970
TI Photosensitizers and tumor cytotoxic agents containing porphyrins from plants
IN Yamazaki, Yukinae; Kono, Yasuhiro; Guy, Kim Gun
PA National Institute of Advanced Industrial Science and Technology, Japan
SO Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

 PI JP 2004217541 A2 20040805 JP 2003-4662 20030110
 PRAI JP 2003-4662 20030110

=> FIL STNGUIDE	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	1.55	396.69
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'STNGUIDE' ENTERED AT 10:47:08 ON 27 JAN 2005
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 AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jan 21, 2005 (20050121/UP).

=> FIL CAPLUS	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	0.06	396.75
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'CAPLUS' ENTERED AT 10:47:22 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
 FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> DIS L24 2
 THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
 DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L24 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:658860 CAPLUS
 DN 140:299524

TI A novel porphyrin photosensitizer from bamboo leaves that induces
 apoptosis in cancer cell lines
 AU Kim, Keun Ki; Kawano, Yasuhiro; Yamazaki, Yoshimitsu
 CS Biotechnology Department, Miryang National University, Miryang, Kyungnam,
 627-702, Japan
 SO Anticancer Research (2003), 23(3B), 2355-2361
 CODEN: ANTRD4; ISSN: 0250-7005
 PB International Institute of Anticancer Research
 DT Journal
 LA English
 RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FIL STNGUIDE	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	1.55	398.30
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'STNGUIDE' ENTERED AT 10:47:34 ON 27 JAN 2005
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 AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jan 21, 2005 (20050121/UP).

=> FIL CAPLUS	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	0.12	398.42
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'CAPLUS' ENTERED AT 10:48:57 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
 FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS		

	ENTRY	SESSION
FULL ESTIMATED COST	0.45	398.87
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:49:50 ON 27 JAN 2005
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 provided by InfoChem.

STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
 DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
 information enter HELP PROP at an arrow prompt in the file or refer
 to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

```
=> s 4454323-87-0
      0 4454323
      35723 87
      790367 0
L25      0 4454323-87-0
          (4454323(W)87(W)0)
```

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	14.23	413.10
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:50:16 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
 DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more

information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> 445423-87-0

445423-87-0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s 445423-87-0

L26 1 445423-87-0
 (445423-87-0/RN)

=> d 126

L26 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN **445423-87-0** REGISTRY

CN Magnesium, [(2E,7R,11R)-3,7,11,15-tetramethyl-2-hexadecenyl
 (15S,16S,18S)-10-ethenyl-5-ethyl-1,15,16,18-tetrahydro-18-methoxy-18-
 (methoxycarbonyl)-6,11,15,22-trimethyl-20-oxo-20H-9,12-imino-2,21-metheno-
 7,4:14,17-dinitrilopyrano[4,3-b]azacyclononadecine-19-18O-16-propanoato(2-
)-κN1,κN23,κN24,κN25]-, (SP-4-2)- (9CI) (CA INDEX
 NAME)

MF C56 H74 Mg N4 O7

CI CCS

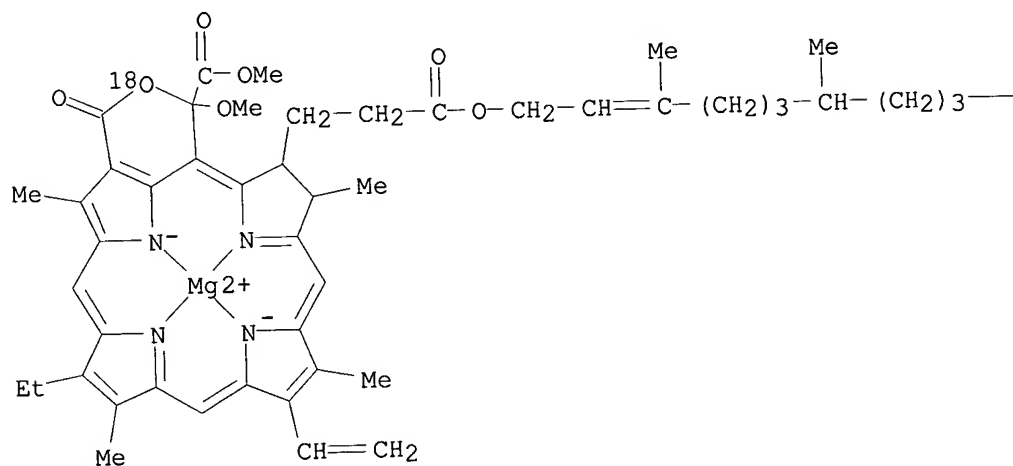
SR CA

LC STN Files: CA, CAPLUS

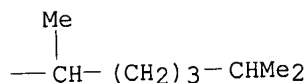
DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);
 PROC (Process); PRP (Properties)

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

	SINCE FILE ENTRY	TOTAL SESSION
COST IN U.S. DOLLARS	2.27	415.37
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	0.00	-1.36
CA SUBSCRIBER PRICE		

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DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L26 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L27 1 445423-87-0/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

	SINCE FILE ENTRY	TOTAL SESSION
COST IN U.S. DOLLARS	0.51	415.88
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'CAPLUS' ENTERED AT 10:50:52 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L27

L28 1 L27

=> DIS L28 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L28 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:372416 CAPLUS
DN 137:152458
TI Tracing the Allomerization Pathways of Chlorophylls by 18O-Labeling and Mass Spectrometry
AU Hynninen, Paavo H.; Hyvaerinen, Kristiina
CS Department of Chemistry Laboratory of Organic Chemistry, University of Helsinki, Helsinki, FIN-00014, Finland
SO Journal of Organic Chemistry (2002), 67(12), 4055-4061
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> FIL STNGUIDE
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
1.55	417.43

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-1.36

CA SUBSCRIBER PRICE

FILE 'STNGUIDE' ENTERED AT 10:51:08 ON 27 JAN 2005
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jan 21, 2005 (20050121/UP).

=> FIL CAPLUS
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
------------	-------

	ENTRY	SESSION
FULL ESTIMATED COST	0.24	417.67
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'CAPLUS' ENTERED AT 10:53:38 ON 27 JAN 2005
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 FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	0.45	418.12
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

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TSKA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 289626-65-9
 L29 1 289626-65-9
 (289626-65-9/RN)

=> d 129

L29 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 289626-65-9 REGISTRY

CN 3-Phorbinepropanoic acid, 21-[(decyloxy)carbonyl]-9-ethenyl-14-ethyl-4,8,13,18-tetramethyl-20-oxo-, (2E,7R,11R)-3,7,11,15-tetramethyl-2-hexadecenyl ester, (3S,4S,21R)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C64 H92 N4 O5

SR CA

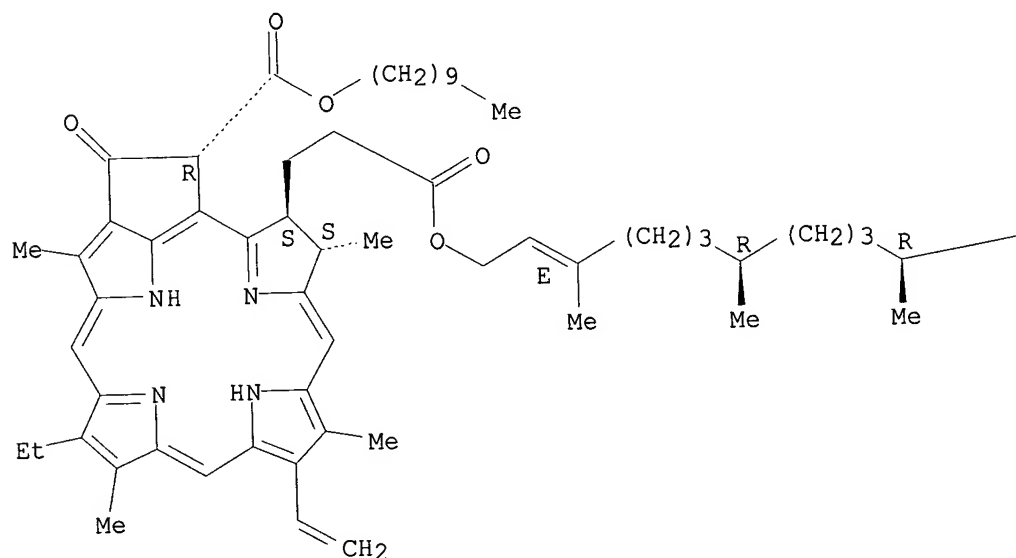
LC STN Files: CA, CAPLUS

DT.CA CAPLUS document type: Journal

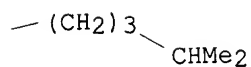
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.70	420.82
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:55:04 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L29 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L30 1 289626-65-9/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	421.33
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'CAPLUS' ENTERED AT 10:55:08 ON 27 JAN 2005
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FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L30

L31 1 L30

=> DIS L31 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L31 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:388450 CAPLUS
DN 133:207711
TI Effect of C132-Stereochemistry on the Molecular Properties of Chlorophylls
AU Furukawa, Hiroyasu; Oba, Toru; Tamiaki, Hitoshi; Watanabe, Tadashi
CS Inst. Ind. Sci., The University of Tokyo, Tokyo, 106-8558, Japan
SO Bulletin of the Chemical Society of Japan (2000), 73(6), 1341-1351
CODEN: BCSJA8; ISSN: 0009-2673
PB Chemical Society of Japan
DT Journal
LA English
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	1.55	422.88
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:55:32 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

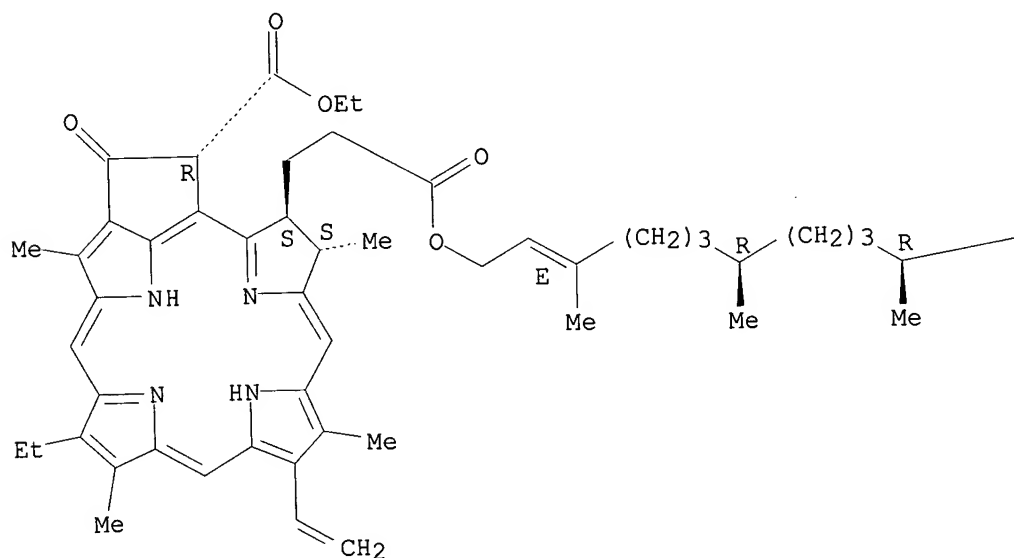
=> s 289626-62-6
L32 1 289626-62-6
(289626-62-6/RN)

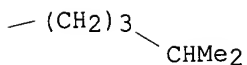
=> d 132

L32 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 289626-62-6 REGISTRY
CN 3-Phorbinepropanoic acid, 9-ethenyl-21-(ethoxycarbonyl)-14-ethyl-4,8,13,18-tetramethyl-20-oxo-, (2E,7R,11R)-3,7,11,15-tetramethyl-2-hexadecenyl ester, (3S,4S,21R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C56 H76 N4 O5
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A





PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.27	425.15
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:55:57 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L32 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L33 1 289626-62-6/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	425.66
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'CAPLUS' ENTERED AT 10:56:02 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L33

L34 1 L33

=> DIS L34 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L34 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:388450 CAPLUS

DN 133:207711

TI Effect of C132-Stereochemistry on the Molecular Properties of Chlorophylls

AU Furukawa, Hiroyasu; Oba, Toru; Tamiaki, Hitoshi; Watanabe, Tadashi

CS Inst. Ind. Sci., The University of Tokyo, Tokyo, 106-8558, Japan

SO Bulletin of the Chemical Society of Japan (2000), 73(6), 1341-1351

CODEN: BCSJA8; ISSN: 0009-2673

PB Chemical Society of Japan

DT Journal

LA English

RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	1.55	427.21
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:56:42 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
 DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

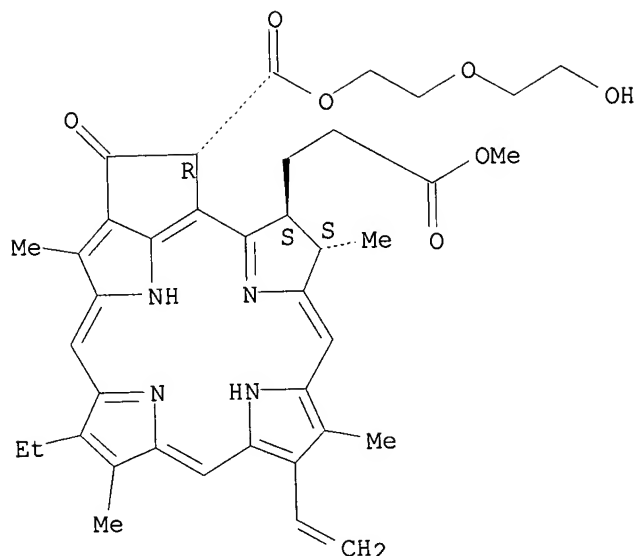
Experimental and calculated property data are now available. For more
 information enter HELP PROP at an arrow prompt in the file or refer
 to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 725269-96-5
 L35 1 725269-96-5
 (725269-96-5/RN)

=> d 135

L35 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 725269-96-5 REGISTRY
 CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-[[2-(2-
 hydroxyethoxy)ethoxy]carbonyl]-4,8,13,18-tetramethyl-20-oxo-, methyl
 ester, (3S,4S,21R)- (9CI) (CA INDEX NAME)
 FS STEREOSEARCH
 MF C39 H44 N4 O7
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 DT.CA Caplus document type: Patent
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES
 (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.27	429.48
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:57:13 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L35 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L36 1 725269-96-5/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL USPATFULL

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	429.99
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'USPATFULL' ENTERED AT 10:57:17 ON 27 JAN 2005
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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 25 Jan 2005 (20050125/PD)
FILE LAST UPDATED: 25 Jan 2005 (20050125/ED)
HIGHEST GRANTED PATENT NUMBER: US6848117
HIGHEST APPLICATION PUBLICATION NUMBER: US2005015836
CA INDEXING IS CURRENT THROUGH 25 Jan 2005 (20050125/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Jan 2005 (20050125/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
>>> USPATFULL. A USPATFULL record contains not only the original <<<
>>> published document but also a list of any subsequent <<<
>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<
>>> enter this cluster. <<<
>>> <<<
>>> Use USPATALL when searching terms such as patent assignees, <<<
>>> classifications, or claims, that may potentially change from <<<
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> S L36

L37 1 L36

=> DIS L37 1

L37 ANSWER 1 OF 1 USPATFULL on STN
AN 2004:185031 USPATFULL
TI Porphyrin derivatives
IN Woo, Nam-Tae, Seoul, KOREA, REPUBLIC OF
Kang, Min-Suk, Ansan, KOREA, REPUBLIC OF
Lee, Won-Young, Seoul, KOREA, REPUBLIC OF
Lee, Chang-Hee, Chuncheon, KOREA, REPUBLIC OF
Kim, Yong-Rok, Seoul, KOREA, REPUBLIC OF
Lee, Dai-Woon, Sungnam, KOREA, REPUBLIC OF
Won, Dong-Hoon, Wonju, KOREA, REPUBLIC OF
Ko, Si-Hwan, Goyang, KOREA, REPUBLIC OF
PI US 2004142917 A1 20040722
AI US 2003-718734 A1 20031120 (10)
PRAI KR 20030116
KR 20030116
DT Utility
FS APPLICATION
LN.CNT 870
INCL INCLM: 514/185.000
INCLS: 514/410.000; 540/145.000
NCL NCLM: 514/185.000
NCLS: 514/410.000; 540/145.000
IC [7]
ICM: A61K031-555
ICS: C07D487-22
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
	2.38	432.37
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
	0.00	-1.36
CA SUBSCRIBER PRICE		

FILE 'REGISTRY' ENTERED AT 10:57:37 ON 27 JAN 2005
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DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L35 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L38 1 725269-96-5/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	432.88
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'CAPLUS' ENTERED AT 10:57:42 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L38

L39 1 L38

=> DIS L39 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L39 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:589244 CAPLUS
DN 141:140240
TI Preparation of porphyrin derivatives for use in pharmaceutical compositions as photosensitizers in antitumor photodynamic therapy and diagnosis

IN Woo, Nam-Tae; Kang, Min-Suk; Lee, Won-Young; Lee, Chang-Hee; Kim,
Yong-Rok; Lee, Dai-Woon; Won, Dong-Hoon; Ko, Si-Hwan
PA S. Korea
SO U.S. Pat. Appl. Publ., 24 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004142917	A1	20040722	US 2003-718734	20031120
	WO 2004063200	A1	20040729	WO 2003-KR2235	20031022
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
PRAI	KR 2003-2921	A	20030116		
	KR 2003-2922	A	20030116		
OS	MARPAT 141:140240				

=> DIS L39 1
THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:N
REQUEST CANCELED

	SINCE FILE ENTRY	TOTAL SESSION
=> file registry COST IN U.S. DOLLARS	2.00	434.88
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:58:53 ON 27 JAN 2005
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DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 289626-65-9

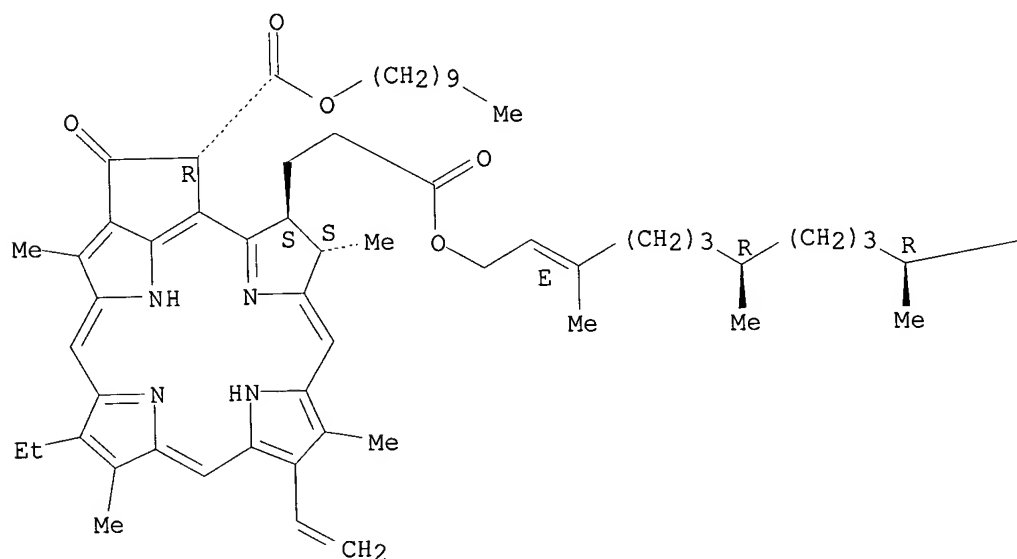
L40 1 289626-65-9
(289626-65-9/RN)

=> d 140

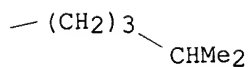
L40 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN **289626-65-9** REGISTRY
CN 3-Phorbinepropanoic acid, 21-[(decyloxy)carbonyl]-9-ethenyl-14-ethyl-
4,8,13,18-tetramethyl-20-oxo-, (2E,7R,11R)-3,7,11,15-tetramethyl-2-
hexadecenyl ester, (3S,4S,21R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C64 H92 N4 O5
SR CA
LC STN Files: CA, CAPLUS
DT.CA Caplus document type: Journal
RL.NP Roles from non-patents: PREP (Preparation); RACT (Reactant or reagent)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.27	437.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 10:59:28 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
 DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L40 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L41 1 289626-65-9/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	437.66
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'CAPLUS' ENTERED AT 10:59:32 ON 27 JAN 2005
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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S L41

L42 1 L41

=> DIS L42 1

THE ESTIMATED COST FOR THIS REQUEST IS 1.10 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L42 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:388450 CAPLUS
DN 133:207711
TI Effect of C132-Stereochemistry on the Molecular Properties of Chlorophylls
AU Furukawa, Hiroyasu; Oba, Toru; Tamiaki, Hitoshi; Watanabe, Tadashi
CS Inst. Ind. Sci., The University of Tokyo, Tokyo, 106-8558, Japan
SO Bulletin of the Chemical Society of Japan (2000), 73(6), 1341-1351
CODEN: BCSJA8; ISSN: 0009-2673
PB Chemical Society of Japan
DT Journal
LA English
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file registry	SINCE FILE	TOTAL
COST IN U.S. DOLLARS	ENTRY	SESSION
	3.80	441.46
FULL ESTIMATED COST		
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 11:02:56 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> s 649746-00-9
L43 1 649746-00-9
(649746-00-9/RN)

=> d 143

L43 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN

RN 649746-00-9 REGISTRY

CN 3-Phorbinepropanoic acid, 9-ethenyl-14-ethyl-21-[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]carbonyl]-4,8,13,18-tetramethyl-20-oxo-, methyl ester, (3S,4S,21R)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN DH-I 180-3

FS STEREOSEARCH

MF C41 H48 N4 O8

SR CA

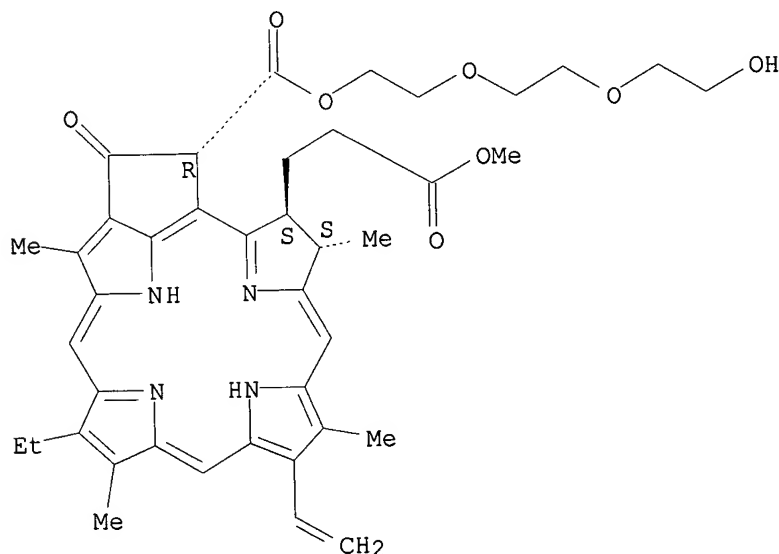
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.27	443.73
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'REGISTRY' ENTERED AT 11:03:22 ON 27 JAN 2005
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STRUCTURE FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0
DICTIONARY FILE UPDATES: 25 JAN 2005 HIGHEST RN 820208-08-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> SET TERMSET E#

SET COMMAND COMPLETED

=> DEL SEL Y

=> SEL L43 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L44 1 649746-00-9/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL USPATFULL

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.51	444.24
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-1.36

FILE 'USPATFULL' ENTERED AT 11:03:27 ON 27 JAN 2005
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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 25 Jan 2005 (20050125/PD)
FILE LAST UPDATED: 25 Jan 2005 (20050125/ED)
HIGHEST GRANTED PATENT NUMBER: US6848117
HIGHEST APPLICATION PUBLICATION NUMBER: US2005015836
CA INDEXING IS CURRENT THROUGH 25 Jan 2005 (20050125/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 25 Jan 2005 (20050125/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2004
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<
>>> original, i.e., the earliest published granted patents or <<<
>>> applications. USPAT2 contains full text of the latest US <<<
>>> publications, starting in 2001, for the inventions covered in <<<
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>>> publications. The publication number, patent kind code, and <<<
>>> publication date for all the US publications for an invention <<<
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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> S L44

L45 1 L44

=> DIS L45 1

L45 ANSWER 1 OF 1 USPATFULL on STN
AN 2004:185031 USPATFULL
TI Porphyrin derivatives
IN Woo, Nam-Tae, Seoul, KOREA, REPUBLIC OF
Kang, Min-Suk, Ansan, KOREA, REPUBLIC OF
Lee, Won-Young, Seoul, KOREA, REPUBLIC OF
Lee, Chang-Hee, Chuncheon, KOREA, REPUBLIC OF
Kim, Yong-Rok, Seoul, KOREA, REPUBLIC OF
Lee, Dai-Woon, Sungnam, KOREA, REPUBLIC OF
Won, Dong-Hoon, Wonju, KOREA, REPUBLIC OF
Ko, Si-Hwan, Goyang, KOREA, REPUBLIC OF
PI US 2004142917 A1 20040722
AI US 2003-718734 A1 20031120 (10)
PRAI KR 20030116
KR 20030116
DT Utility
FS APPLICATION
LN.CNT 870
INCL INCLM: 514/185.000
INCLS: 514/410.000; 540/145.000
NCL NCLM: 514/185.000
NCLS: 514/410.000; 540/145.000
IC [7]

ICM: A61K031-555
ICS: C07D487-22
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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NEWS	14	DEC 30	EPPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPPFULL during January and February 2005
NEWS	17	JAN 26	CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)
NEWS EXPRESS			JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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NEWS INTER			General Internet Information
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TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

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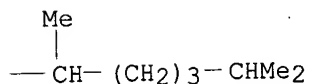
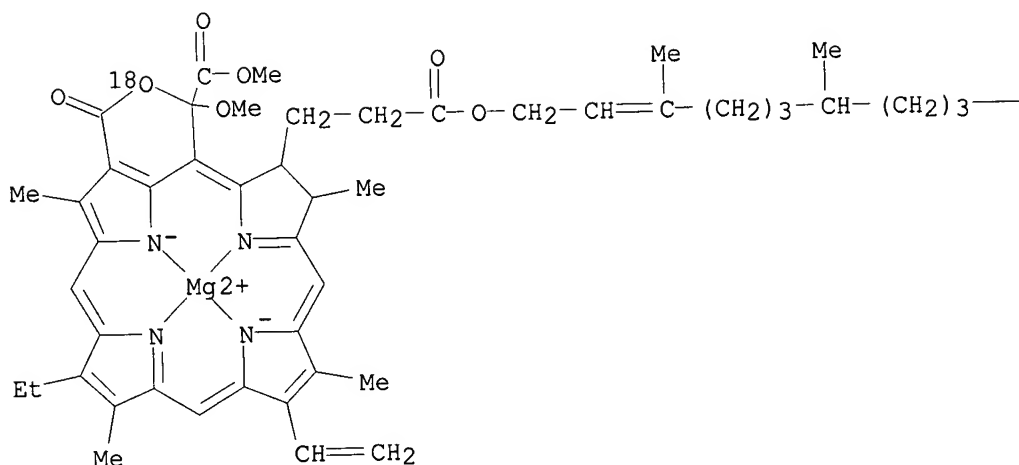
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=> s 445423-87-0
L1 1 445423-87-0
(445423-87-0/RN)

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2005 ACS on STN
RN 445423-87-0 REGISTRY
CN Magnesium, [(2E,7R,11R)-3,7,11,15-tetramethyl-2-hexadecenyl
(15S,16S,18S)-10-ethenyl-5-ethyl-1,15,16,18-tetrahydro-18-methoxy-18-
(methoxycarbonyl)-6,11,15,22-trimethyl-20-oxo-20H-9,12-imino-2,21-metheno-
7,4:14,17-dinitrilopyrano[4,3-b]azacyclononadecine-19-18O-16-propanoato(2-
)-κN1,κN23,κN24,κN25]-, (SP-4-2)- (9CI) (CA INDEX
NAME)
MF C56 H74 Mg N4 O7
CI CCS
SR CA
LC STN Files: CA, CAPLUS
DT.CA CAplus document type: Journal
RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation);
PROC (Process); PRP (Properties)



1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
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=> SET TERMSET E#

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=> DEL SEL Y

=> SEL L1 1 RN

E1 THROUGH E1 ASSIGNED

=> S E1/RN

L2 1 445423-87-0/RN

=> SET TERMSET LOGIN

SET COMMAND COMPLETED

=> FIL CAPLUS

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FILE COVERS 1907 - 27 Jan 2005 VOL 142 ISS 5
FILE LAST UPDATED: 26 Jan 2005 (20050126/ED)

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=> S L2

L3 1 L2

=> DIS L3 1

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L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:372416 CAPLUS
DN 137:152458
TI Tracing the Allomerization Pathways of Chlorophylls by 18O-Labeling and Mass Spectrometry
AU Hynninen, Paavo H.; Hyvaerinen, Kristiina
CS Department of Chemistry Laboratory of Organic Chemistry, University of Helsinki, Helsinki, FIN-00014, Finland
SO Journal of Organic Chemistry (2002), 67(12), 4055-4061
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society

DT Journal
LA English

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